

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF MISSISSIPPI
OXFORD DIVISION

4
5 UNITED STATES OF AMERICA PLAINTIFF
VS. NO. 3:21CR107

JAMARR SMITH, THOMAS IROKO AYODELE,
AND GILBERT McTHUNEL, II DEFENDANTS

TESTIMONY OF SPENCER McINVAILLE
EXCERPT FROM MOTION TO SUPPRESS HEARING

BEFORE HONORABLE SHARION AYCOCK
UNITED STATES DISTRICT JUDGE

Oxford, Mississippi
January 31, 2023

APPEARANCES NOTED HEREIN

3 Court Reporter: PHYLLIS K. McLARTY, RMR, FCRR, CCR #1235
4 Federal Official Court Reporter
911 Jackson Avenue East
Oxford, MS 38655

1 APPEARANCES:

2 For the Government: ROBERT J. MIMS, Esquire
3 U.S. Attorney's Office
4 900 Jefferson Avenue
5 Oxford, MS 38655

6 For the Defendant
7 Smith: GOODLOE T. LEWIS, Esquire
8 Hickman, Goza & Spragins, PLLC
9 P.O. Drawer 668
Oxford, MS 38655-0668

10 For the Defendant
11 Ayodele: WILLIAM F. TRAVIS, Esquire
12 8619 Highway 51 North
Southaven, MS 38671

13 For the Defendant
14 McThunel: PAUL A. CHINICHE, Esquire
15 Chiniche Law Firm, PLLC
16 P.O. Box 1202
17 Oxford, MS 38655-1202

18

19

20

21

22

23

24

25

1 * * * * *

2 THE COURT: Counselors, do you need to take a short
3 break before you start? You ready?

4 MR. LEWIS: I'm ready if you are.

5 THE COURT: Okay. I'm ready.

6 MR. LEWIS: Your Honor, the defense calls Spencer
7 McInvaille.

8 (OATH WAS ADMINISTERED BY THE COURTROOM DEPUTY.)

9 COURTROOM DEPUTY: Thank you. You may take the stand.

10 SPENCER McINVAILLE, DEFENDANTS' WITNESS, AFTER BEING
11 DULY SWORN, WAS EXAMINED AND TESTIFIED AS FOLLOWS:

12 DIRECT EXAMINATION

13 BY MR. LEWIS:

14 Q. Can you state your name for us, please?

15 A. Yes. Spencer McInvaille. Last name is
16 M-c-I-n-v-a-i-l-e.

17 Q. What do you do for a living?

18 A. I work for Envista Forensics. We're a forensic
19 consulting firm.

20 Q. And we're going to get into a little more detail, but
21 what do you do for Envista Forensics?

22 A. So I'm a technical lead. I work over a few examiners. I
23 also work a caseload myself. I deal with various types of
24 digital evidence, from cell phones to geolocation, various
25 disciplines within that group.

1 Q. And so we've designated you as an expert in digital
2 forensics and geolocation analysis. So why don't you just
3 generally tell us what that is.

4 A. Sure. So digital forensics revolves around us getting
5 data and evidence off of most digital devices or services that
6 retain these forms of data. So that could be a cell phone,
7 third parties like Google GPS locations, from ankle monitors,
8 or from those devices. So analyzing, then, that data that we
9 retrieve to render opinions based on the locations and the
10 activities that occur around those technologies.

11 Q. And how those technology companies store and produce that
12 kind of data; right?

13 A. Right. So understanding the processes behind that, how
14 they gather this data, what it's used for and its application,
15 you know, now from the private side, to the end user, to here
16 in the courtroom.

17 Q. And so what -- just briefly, what's your education and
18 experience in digital forensics and geolocation analysis?

19 A. Sure. Prior, I was a law enforcement officer. I did
20 that for eight and half years. The last four years
21 approximately working violent crimes. During that time, I
22 began to deal with digital evidence for our group. I was
23 dealing with phones and mobile location, geolocation evidence.

24 So I've continued to learn not only on the job but as
25 well as various trainings and certifications over the years.

1 And I've now been with Envista for coming on six years now, and
2 we continue our education into these areas constantly.

3 Q. So something came along a few years ago called the
4 geofence warrant. You're familiar with that?

5 A. That's correct.

6 Q. And so, you know, again, you don't have to go into a lot
7 of detail, but how did you get involved in dealing with
8 geofence warrants?

9 A. So the geofence warrant itself is mainly a process and --
10 you know, a piece of legal process that's being used to query a
11 set of data from Google in a specific way.

12 Now, the data that's being retained there is based on our
13 common data types that we would use prior to that type of
14 warrant being used. So cellular data, WiFi connections,
15 Bluetooth, GPS, those types of measurements that get taken.
16 It's now aggregated, though, based on this particular service
17 from Google.

18 Q. And so have you been accepted as an expert --

19 THE COURT: Excuse me. I ask you to slow down --

20 THE WITNESS: Yes, ma'am.

21 THE COURT: -- for the court reporter.

22 THE WITNESS: Yes.

23 BY MR. LEWIS:

24 Q. Have you been accepted as an expert in the field of
25 digital forensics and geolocation analysis?

1 A. Yes. I've testified about 42 times, I believe, in state
2 and federal court.

3 Q. And you, in fact, testified in the *USA versus Chatrie*
4 case in Virginia, which pertained to the same kind of warrant
5 we're talking about here today; correct?

6 A. Yes. I have testified twice in the Eastern District of
7 Virginia for federal court as well as the -- I believe it's the
8 Middle District of Florida in Tampa for geofence warrants, as
9 well as various state courts. I believe about ten times total
10 for location history and geofence warrants.

11 Q. And you were -- you were accepted as an expert in those
12 courts; is that correct?

13 A. That's correct.

14 **MR. LEWIS:** Your Honor, I would tender Mr. McInvaille
15 as an expert in digital forensics and geolocation analysis.

16 **MR. MIMS:** No objection.

17 **THE COURT:** Okay. So he is accepted as an expert in
18 digital data for geolocation analysis.

19 **BY MR. LEWIS:**

20 Q. Mr. McInvaille, you prepared a report; is that correct?

21 A. I did.

22 Q. And we've attached it to our motion and provided it to
23 the Court. I'm just going to ask you, what -- what information
24 did you rely on in giving the opinions that you are giving here
25 today?

1 A. Sure. So I will, of course, want the geofence warrant so
2 that I can understand which process for that request was used
3 in this particular matter, the -- all of the responses from
4 Google as that pertains to that warrant. Generally, I will get
5 case, you know, documentation, general discovery that provides
6 some details as well. So all of those together.

7 Q. And so let's just talk about Google for a minute. Why
8 does Google collect somebody's location history?

9 A. So that's probably the key here, is that this warrant
10 cannot be accomplished or at least you cannot locate anyone
11 with this warrant without this specific service called location
12 history. It commonly gets confused with the location services
13 like the actual permissions that you give at the device base
14 level.

15 This is an accounts letting settle -- excuse me --
16 accounts level setting that is allowing you to gather your own
17 location information and store it to your specific account. So
18 it is separate of letting your phone know, hey, this is where I
19 am so I can navigate places, thing like this. This is an
20 actual service of Google rather than a specific, like, switch.

21 So I kind of use it as this analogy of power inside of
22 your house. When you flip the switch on and off, that's those
23 location history -- or -- excuse me -- location services that
24 people are talking about, when you put your phone in airplane
25 mode or allow it to gather information to be used. That has to

1 be on, of course, for location history to operate. That is a
2 separate service from Google, meaning the actual power it flows
3 through so you can turn it on or turn it off, that gets
4 gathered.

5 Q. Does Google collect this information so it can help the
6 government solve crimes?

7 A. No. They -- they have labeled this as a service to the
8 user akin to their journal.

9 Q. Right. So explain that a little bit. So what do you
10 mean by journal?

11 A. So it stores within the account. So, within your Google
12 account that you have, your Gmail account, what it's storing is
13 not only your location history, if you've allowed it to do this
14 operation, it's storing your Google searches, so both voice and
15 text searches, as well as your location history, and then any
16 other information that you're allowing it to gather. It
17 aggregates that within your -- within your account.

18 Q. And does Google also -- start over. Would Google also
19 like to sell you an ad, would like to use it for advertising?

20 A. They do, but the actual service of location history
21 does -- is not an -- is not an ad-based service actually. It
22 is more for the user experience.

23 If you've ever gotten into your vehicle in the morning to
24 go to work but it realizes that you like to stop by a
25 particular place to get coffee every day because you constantly

1 do that, this data set that is being created because you're
2 allowing it to is now what is prompting your phone to say, hey,
3 do you want to stop by and get coffee this morning? If so,
4 this is the best route to go.

5 Q. Okay. So let's kick over to a geofence warrant and talk
6 about -- and you're familiar with the warrant we have in this
7 case?

8 A. I am.

9 Q. Let's talk about what this warrant is asking Google to
10 do. Go ahead.

11 A. So, generally, in a warrant, if you have a Google account
12 and you are looking for information regarding that account, we
13 would draw up a search warrant that says, Google, we want to
14 know about goodloe.lewis@gmail.com. And we want location
15 history. We want e-mails, IP logs, whatever we decide we need
16 based on the investigation, based on what we know about that
17 account.

18 In this instance, because we don't know the specific
19 account that's being requested, the government is outlining a
20 three-step process that allows you to eventually get to that
21 point, even without knowing who you're looking for. So, in
22 this instance, to find the person, we need that they have a
23 phone; they need a Gmail account; and then they need location
24 history turned on. That's the very first part that has to
25 happen.

1 Once the warrant is applied to that and begins to search
2 that sphere of that group of people, that bucket of data, in
3 the first step, what it's going to return is that document that
4 we've seen over and over again. I believe G-2 maybe was the
5 document that outlines the device ID, the estimated location,
6 and then, obviously, some details about that location, but
7 that's the extent of the information that is received.

8 Q. All right. So let's stop there. So here's G-3 actually.
9 Is that what you were just talking about?

10 A. Right. So, once that request is made, this is the very
11 first step in this process, is learning the anonymized, with
12 air quote, information that is being provided for -- for the
13 data retrieved.

14 Q. Right. Because we're about to start using probably my
15 least favorite word ever, de-anonymize. Okay. My mouth was
16 not made to say that word.

17 Okay. So -- but let's talk about this Step 1. Okay?
18 Based upon your knowledge, your experience, where is Google
19 keeping the information that they go to get this Step 1
20 information?

21 A. So, commonly, it's referred to as the Sensorvault where
22 this data is stored. It is a large repository of users' data.
23 The device identifiers are an important piece of that, because
24 within your Google account, you can have multiple devices
25 capturing this data at any given time. So, as a result, in

1 this big bucket of data, you have individual device IDs, and
2 then there are locations to go along with it.

3 What this warrant in Step 1 is asking Google to do is to,
4 you know, essentially kind of draw this box within their system
5 and say whose data falls within this group. As a result of
6 that request, they have to search that entire bucket of data.
7 They can't just look at individual accounts.

8 Q. Okay. So now we're kind of getting to the point. How
9 many accounts does Google typically search in these situations?

10 A. This is a 2018 incident. Google estimates that it was
11 approximately 592 million accounts that had to be searched to
12 determine if you fit into a particular box or circle or
13 whatever polygon is drawn.

14 Q. Okay. And so how does Google decide if one of these
15 accounts falls into the box?

16 A. So, going back to G-3, I believe is what you said it was,
17 if you look within G-3, the key piece that returns this user's
18 data as responsive to the warrant are the latitude and
19 longitude coordinates that are provided. So, as long as that
20 point there -- oh, excuse me. I think I drew on the screen.
21 As long as those points fall within the geofence, then it is
22 returned as responsive.

23 You've -- I don't know if you've seen yet as far as what
24 shows up in the data, but around that reference point, we will
25 then draw a circle around that particular point using that

1 map's display radius to the right, which is in meters. So that
2 is a circle that gets drawn over that reference point.

3 Q. Okay. So I'm going to show you then. This is Figure 5
4 from your report, Page 7 of 36. And so, yeah, does Google
5 actually search the box?

6 A. So, no, they have to search the entire data set just to
7 see which devices fall within the parameters of the box. So
8 the search is not limited to the -- to the box. The return is
9 limited to the box, if that makes sense.

10 Q. Okay. So show -- tell the Court what you're showing here
11 on Figure 5.

12 A. Okay. So, within that data set that you see in G-3, this
13 is one of those points. And so, for example, the center point
14 of this blue circle is likely somewhere in there (indicating).
15 It's probably just to the right of that. It looks a little off
16 from where I just put it, but it's very close to that. Since
17 that center point falls within the square, that piece of data
18 is returned in that G-3-piece of paper.

19 The important piece to note there is, when they give you
20 the map's display radius, that's kind of their error radius
21 around that estimation that they have made. The device can be
22 anywhere within that circle. So it could be within the shaded
23 area that's in the geofence, but it could also be outside of
24 the geofence.

25 In the particular way that this warrant was drafted, it

1 allowed for -- as long as the center point falls within the
2 geofence, that that data is returned. There's other ways that
3 you can ask for this to be done, but this is the way that it
4 was done here.

5 Q. Okay. So -- all right. So let's continue on. After --
6 wait. Have you explained everything you need to explain about
7 how we get this Step 1 data in G-3?

8 A. Correct. I have.

9 Q. Okay. All right. So what happens next?

10 A. So, as it states in the warrant, you will -- law
11 enforcement will analyze this data that's being provided. So
12 we will take each of those points that are being labeled in
13 G-3, we'll map those out, and start -- and begin to look at,
14 where were these positioned at? What times were they
15 positioned in those locations? And then what can I determine
16 from that?

17 Based on that analysis, there's going to be subsequent
18 requests being made to Google or demands made to Google for
19 further data. So the next step here would be to get what's
20 called contextual data.

21 Q. Okay. Go ahead. What's that?

22 A. So contextual data -- the reason they call it that is for
23 that very reason. It provides context. So now you are going
24 to see -- rather than just limited to a specific geographical
25 area within that box, we're now going to see generally what you

1 will see as devices travel from one place to the geofence and
2 then leave that geofence or remain within there the entire
3 time. But what it does, it provides more information.

4 Q. Okay. And then what happens next?

5 A. So, then, again, you will complete an analysis of that
6 data, then see if that changes anything. The judge asked
7 earlier about narrowing. Typically, through the analysis of
8 each of these, you will see narrowing occur.

9 People will decide that, hey, I had three in the
10 beginning. As a result of the first three sets of -- you know,
11 the first three data points that I see in the beginning, I only
12 need two of those moving on because -- let's say it's based on
13 the time frame or where they're positioned that you say, well,
14 I don't think this person is relevant so I'm not going to
15 include them in the subsequent request.

16 So then, as you move to Step 2, same thing. You can make
17 another choice and determine, hey, I don't even need this other
18 person anymore because I figured out that they live across the
19 street. Whatever that is.

20 Step 3, now we will make the decision who do we want to
21 reveal their -- you know, your word "de-anonymize."

22 Q. Okay. And that's when they get the specific names on the
23 accounts and proceed on from there with other investigative
24 techniques; correct?

25 A. That's right. So, from my understanding of the process

1 that was gone through here is that, in Step 1, three devices
2 were returned. In Step 2, three devices received more
3 contextual data. And Step 3, all three were revealed for their
4 subscriber information.

5 Q. Okay. All right. So let's discuss something I think is
6 already clear but maybe use an example about how Google did
7 this process that might help the Court.

8 Did this warrant ask for any -- the identity -- start
9 over. Did this warrant identify any specific account names
10 that it was requesting information for?

11 A. No. Again, this is an unknown search. You are asking
12 Google to search all of the data that they have available in
13 hopes to identify someone.

14 Q. So let's give us -- since this is a post office, let's
15 use an analogy that there is something in a post office box in
16 the post office that the government wants to know.

17 A. Okay.

18 Q. How does this warrant work in relation to that concept
19 there?

20 A. So, in this instance, rather than say, hey, I want P.O.
21 box number, you know, 400 at the -- I don't know what the zip
22 code is for Oxford, but let's just say whatever the zip code is
23 for Oxford. That would be a specific request for a box at one
24 location. Essentially what you're saying here is that I know
25 someone has a P.O. box, and as a result, we need to search the

1 P.O. boxes to find, let's just say, some package that we're
2 looking for.

3 In this instance, rather than just search the boxes
4 within one post office within Oxford, this is going to require
5 the post office to search all of their post office boxes,
6 California, Virginia, North Carolina, and even if you went
7 overseas to, let's say, an APO where they're delivering stuff
8 to soldiers in wherever, we've got to check those too, because
9 that's what's happening here. It's all of the accounts that
10 they have, not just a specific one.

11 Q. All right. We talked about this language in the warrant
12 application -- well, it's in the warrant and the warrant
13 application -- about -- and I'll just read it under Step 1.
14 "Law enforcement will analyze this location data to identify
15 users who may have witnessed or participated in the subject
16 offenses and will seek any additional information regarding
17 those devices through further legal process." Did I read that
18 correctly?

19 A. Yes, sir, you have.

20 Q. And you have reviewed the information that went to Google
21 that's been provided by the government; correct?

22 A. I have.

23 Q. And you have reviewed the information that came back
24 to -- from Google to the government; correct?

25 A. That's right.

1 Q. Have you seen -- were there any other warrants issued
2 pertaining to further legal process to do Step 2 and 3?

3 A. No, not in this instance. It was all revolving around
4 the November 8th search warrant. This is a common piece of
5 language that I see in geofence warrants. It's showed up in
6 other warrants in the past as well.

7 Q. Okay. In this particular case, why didn't the government
8 just ask for location history for somebody's -- somebody's
9 account?

10 A. Again, they -- I believe it's been testified they didn't
11 know which account to -- to ask for.

12 Q. Okay. Now, this hasn't come up yet, and I don't know
13 that the government does think this is analogous, but let's
14 talk about it for a minute. There's something called "tower
15 dump." Okay. What is a tower dump?

16 A. So, in a tower dump, what we're asking the cell phone
17 providers to do is to tell us who communicated on a certain set
18 of towers.

19 So generally what we're looking at is -- for instance,
20 here at the post office, there is a certain set of cell phone
21 towers for all of the carriers that are going to be positioned
22 in that area that provide service to that specific location.
23 You're then going to ask those carriers to tell you who
24 communicated on those towers during a specific time frame.
25 That way you can begin to identify the numbers that were in

1 that general area in making communications.

2 Q. So what's the difference between what the government is
3 doing here with this geofence warrant and a tower dump?

4 A. So the tower dump is actually restricted as far as the
5 search to that specific location. The records pertaining to
6 those particular towers are being searched. So those
7 particular towers only cover a finite area.

8 As a -- you know, kind of on the flip side of that, for
9 the Google warrants, because that data is not stored in a way
10 that allows you to search it based on a specific geographic
11 area, you're then having to make that search across the full
12 range of data for all of the accounts to find who was in
13 that -- that given area.

14 Q. Okay.

15 **MR. LEWIS:** Bear with me a moment, Your Honor.

16 **THE COURT:** Uh-huh.

17 (**CONFERRING OFF THE RECORD.**)

18 **BY MR. LEWIS:**

19 Q. This came up earlier, and just so maybe there's -- this
20 is clear, the information sought by this warrant, does that --
21 does the information Google returned tell you if somebody was
22 making a phone call within the geofence at any given time?

23 A. No, it does not. This only provides location information
24 for the devices.

25 Q. Does it indicate if somebody is sending a text to

1 | somebody within that period of information?

2 A. Just locations. That is it.

3 Q. Okay. So, I mean, you know, does -- okay. So, in this
4 particular case, did it return these three devices because
5 somebody was making a phone call or texting within that
6 particular fence?

7 A. No. Location history will collect passively. It
8 commonly can collect several times a minute. So, no, this
9 happens just because the device is on.

10 Q. Okay. All right.

11 **MR. LEWIS:** Thank you, Your Honor. That's all the
12 questions I have.

13 **THE COURT:** Do either of the other defendants' counsel
14 wish to question the expert?

15 MR. TRAVIS: No questions. Thank you, Your Honor.

16 MR. CHINICHE: Yes, Your Honor.

DIRECT EXAMINATION

18 | BY MR. CHINICHE:

19 Q. So, Mr. McInvaille, when Google got the search warrant
20 from the inspectors in this case, if -- if I had a Google
21 account, Google got into my account; is that right?

22 A. That's correct.

23 Q. And if Mr. Charlie has a Gmail account, Google got into
24 his account; is that right?

25 A. That would be true for every -- and that's for every

circle or square or geofence that you draw within a warrant. That happens either one time or multiple times for each warrant. So for every warrant that comes through.

4 Q. Every warrant. So if law enforcement gets a geofence
5 warrant in Tampa, Florida, a geofence, and I've got a Gmail
6 account, Paul Chiniche in Oxford, Google is going through my
7 account?

8 A. That's correct. They would determine if your account has
9 any locations that fall within the parameters of that geofence
10 warrant in Tampa.

11 Q. And you estimated -- how many accounts did Google go
12 through with respect to this particular search warrant?

13 A. So Google estimated in 2018 that 592 million users use
14 location history, and that's the amount that would be searched
15 to facilitate the response.

16 Q. And where do you get that information from?

17 A. I worked a case in California, the *Dawes* case, D-a-w-e-s.
18 In that matter, a Google employee responded to a request that
19 we had made to ask how many accounts were affected by the
20 search.

21 MR. CHINICHE: Thank you. I have no further
22 questions.

23 THE COURT: Okay. Cross-examination, Mr. Mims?

24 MR. MIMS: Yes, Your Honor.

CROSS-EXAMINATION

1 BY MR. MIMS:

2 Q. Good afternoon, Mr. McInvaille.

3 A. Afternoon.

4 Q. Before we get into this case in detail in a minute, I
5 just want to go back and ask you a few questions about you.
6 This is the first chance I've had to meet you and really ask
7 you questions. Have you ever worked for Google?

8 A. No, I have not.

9 Q. Okay. Have you ever personally submitted a geofence
10 warrant to Google?

11 A. No, sir, I have not.

12 Q. Okay. What training do you have in Google's operations
13 and procedures?

14 A. I don't have any training. I just have experience from
15 the cases that I've worked.

16 Q. The cases you've worked. Explain to me what cases that
17 you've worked. You're talking about as an expert witness?

18 A. That's correct.

19 Q. Okay. But you're not talking about as a law enforcement
20 officer?

21 A. We made Google requests in law enforcement as well. My
22 knowledge of location history comes from -- from both of those.

23 Q. I'm sorry. Well, let me ask you -- so do you have law
24 enforcement experience?

25 A. Yes, I do.

1 Q. Tell me about that.

2 A. I did eight and a half years at the Lancaster County
3 Sheriff's Office in South Carolina. I held various titles
4 during that time. The last four or so years, I worked in
5 violent crime investigations.

6 Q. Okay.

7 A. During that time, I dealt with -- I did all of our mobile
8 phones, cell location, geolocation type evidence prior to
9 coming to Envista.

10 Q. When did you leave there?

11 A. 2017.

12 Q. All right. Did you ever seek any geofence warrants when
13 you were working in South Carolina in law enforcement?

14 A. No. At the time, that wasn't -- it actually wasn't a
15 widely known technique.

16 Q. Okay.

17 A. It wasn't until a few -- sometime after that that they
18 began to come out.

19 Q. Okay. So, when I asked you about experience or training
20 in Google's operations and procedures, you talked about, "Well,
21 I know something from my law enforcement experience." That has
22 nothing to do with their procedures on geofence warrants
23 because you weren't doing them back then; right?

24 A. So the submission for location history accounts or those
25 requests is the same through the portal as you've heard

1 described before. The process for the geofence, no, was not
2 for law enforcement.

3 Q. Well, and you used a good word there that I was about to
4 use. "Process." You understand maybe the process of how you
5 submit things through the legal portal at Google; right?

6 A. Yes, I understand the process.

7 Q. But as far as -- what I'm wanting to know is, on the
8 other side of the house, inside the walls of Google, do you
9 have any training and experience on how they store things and
10 how they do things?

11 A. No, I do not.

12 Q. Mr. McInvaille, how much are you getting paid for your
13 time?

14 A. I'm a salaried employee with our company.

15 Q. Well, my understanding is that, when defendants hire an
16 expert such as you in this case, they have to pay you; right?

17 A. If I worked for myself, yes, they would be paying me, but
18 they're not. They're not paying me. They pay my company.

19 Q. They pay your company. Well, let me ask it this way.
20 How much is your company getting paid for your time?

21 A. I believe it's \$250 an hour.

22 Q. Okay. And I know you mentioned it earlier, but I just
23 want to make sure I have it right. How many times -- well, you
24 didn't mention this particularly. How many times have you been
25 designated as an expert before?

1 A. About 42 times, I believe.

2 Q. All right. And that's the same number of times you said
3 you've testified in court; correct?

4 A. That's correct. Or testified in total.

5 Q. Right. So not necessarily in court. Some may be in a
6 deposition?

7 A. Correct.

8 Q. Do you know how many times you would have testified in
9 court?

10 A. 30 some odd -- some odd times.

11 Q. In all of these 42 times total, have you ever testified
12 before on geofence warrants specifically?

13 A. Yes.

14 Q. How many times?

15 A. Three times in federal court and a handful in state
16 court. I'm not sure of the exact number of just geofence.

17 Q. One of those times, in fact, was in the *Chatrie* case;
18 right?

19 A. That's correct. Twice.

20 Q. Okay. So twice in the same case?

21 A. That's right.

22 Q. And that's the case out of the -- is it the Eastern
23 District of Virginia?

24 A. That's right.

25 Q. That's really one of the earliest reported decisions on

1 geofence warrants, isn't it?

2 A. Yes. The earliest federal district court level, yes.

3 Q. There's really not much federal case law on this, is
4 there?

5 A. There's not. They're currently being litigated.

6 Q. And in the *Chatrie* case in which you testified as an
7 expert for the defendants; right?

8 A. Yes.

9 Q. That's one in which the Court said that the good faith
10 exception applies and therefore denied the motion to suppress;
11 correct?

12 A. I believe that's correct.

13 Q. So, Mr. McInvaille, I want to see if we can agree on a
14 few things. I know we're on opposite sides of this case here,
15 but a lot of times I like to try to see if we can find some
16 common ground and agree on a few things.

17 First of all, Google is certainly capable of determining
18 what devices are located within a geofence; right?

19 A. They can estimate it, yes.

20 Q. I'm sorry?

21 A. It's an estimation, but, yes, they can do it.

22 Q. Okay. And would you agree with me this information is
23 beneficial to law enforcement in determining who may have been
24 present at the scene of a crime?

25 A. You said it's beneficial?

1 Q. Yes.

2 A. I think it's useful, yes.

3 Q. In fact, FBI and other law enforcement agencies, they
4 have used geofence information to find people who have been
5 kidnapped or find runaway children or find terrorists, even, or
6 other criminals? Would you agree that FBI and law enforcement
7 agencies have used these to -- used geofences to find that
8 information?

9 A. They could have.

10 Q. In fact, since about 2018, geofences are used quite
11 frequently, aren't they?

12 A. They're becoming more common, yes.

13 Q. Well, more common. In fact, wouldn't you agree with me
14 that Google gets tens of thousands of these geofence warrants
15 each year?

16 A. That's probably true.

17 Q. Okay. And when I say "get them," I'm talking about
18 actually gets them and complies with them, not that it's been
19 rejected or it's been refused by the Court. I'm talking about
20 geofence warrants that are used -- submitted and information is
21 used to help in a case like I'm using.

22 A. That's probably true.

23 Q. Okay. Now, Google does this through location
24 information; right?

25 A. Location history, yes.

1 Q. Location history. Thank you. I appreciate the
2 clarification because I know that's a term that I think you've
3 used in your report is location history; right?

4 A. That's right. That's the specific product that is being
5 searched.

6 Q. Okay. So location history -- first of all, that is
7 information that Google gathers from its subscribers to various
8 Google apps and programs; right?

9 A. So, yes, you're allowing Google to collect this and store
10 to your account.

11 Q. Google meaning the customer. Me as a Google user, my
12 phone. If I use Google Maps, for example, and if I enable
13 location history, I am providing information to Google; right?

14 A. So you don't actually have to use the application. As
15 long as you have location history enabled, it will collect.

16 Q. Correct. If I enable?

17 A. If you enable location history, yes.

18 Q. When I first get a phone, location history is not
19 enabled, is it?

20 A. No. The -- well, your -- when you initially get an
21 account, no, it is not.

22 Q. Okay. In other words, I have to agree to enable location
23 history on my account?

24 A. Right, because you're making an account level decision.
25 So it's -- you're making a decision to store your information

1 to your specific account.

2 Q. But that's a decision that I voluntarily make to share
3 that information with Google?

4 A. So it's not so much that you're sharing with Google. You
5 are storing with Google. It's kind of like your -- if you have
6 a mini storage unit or something, you are storing your
7 belongings within that account.

8 Q. Okay. So let me ask you -- I know you were asked some
9 questions earlier about analogies. Let me make one for you.

10 If you say I'm storing that location in Google -- let's
11 say you are Google, and let's say that my location history is
12 written on this piece of paper. Instead of me keeping it in my
13 file cabinet, I'm giving it to you to put in your file cabinet;
14 right?

15 A. Correct.

16 Q. And you're putting it in a file cabinet there at your --
17 at your business, not in my house; right?

18 A. Correct. It's a separate storage.

19 Q. Okay. And that's what we call a Sensorvault; is that
20 right?

21 A. That's correct.

22 Q. All right. I'm learning a lot in this case because I --
23 I'm not a technological person. So it's taking a little while
24 to catch on to all of this.

25 The Sensorvault -- I think of that as kind of an

1 electronic file cabinet basically at Google's headquarters. Is
2 that fair to say?

3 A. It's probably similar, yes.

4 Q. Okay. Now, I can use my phone to make phone calls, send
5 texts, search the web, all of that, without location services
6 or location history turned on; is that right?

7 A. That's correct. You can.

8 Q. Okay. So location services or location history, that may
9 just be a convenience to me as a consumer. There may be things
10 that I use that it's a little more convenient to me if I have
11 it turned on; right?

12 A. Right. It is a product. Just like you have a house and
13 not have Internet. You don't have to have it, but you may want
14 it.

15 Q. Well, for example, sometimes when I'm traveling, if I
16 don't have location services turned on and I want to -- I'm in
17 a strange place and I want to look at a map, I have to open up
18 Google Maps and actually kind of scroll around and find, okay,
19 I'm in Destin, Florida. Where's my road? Where am I going?
20 Right?

21 A. Yes.

22 Q. But if I have location services turned on, when I hit
23 Google Maps, it pops up and shows me where I am. It makes it
24 easier to use; right?

25 A. Right. And you can do that separate of location history

1 as well.

2 Q. Sure. But I -- in other words, I don't have to do that.
3 I can do it the hard way if I want to; right?

4 A. If you'd like to.

5 Q. Now, Google also uses this location information as well,
6 though. They do sell ads using this information that I've
7 provided Google to store in their Sensorvault; right?

8 A. So, actually, there's other portions of data that they
9 gather for those. Location history is not one of those
10 products.

11 Q. So my understanding is, when Google gets a geofence
12 search warrant, it looks in its Sensorvault, it's electronic
13 storage, to pull the requested info -- information; is that
14 right?

15 A. That's correct.

16 Q. In other words, I described this as kind of an electronic
17 file cabinet. Google, when it's get a geofence warrant, I
18 picture it physically as opening up a drawer and digging
19 through papers. It's doing it electronically obviously, but
20 it's looking at information it stores at its building at its
21 headquarters; correct?

22 A. Right. And rather than go to your -- you know, to your
23 filing cabinet and your particular folder of information, it's
24 got to search that entire file cabinet, yes.

25 Q. But it's all information that I, as a user and consumer,

1 have given to Google to store?

2 A. Yes. It's -- again, you are storing that data with
3 Google.

4 Q. Sure. There's no -- there's no documentation or contract
5 or anything like that that when I give it to Google to store
6 that says, by the way, Google, you are not allowed to share
7 this with anybody anytime, is there?

8 A. It's held under your account with a username and pass
9 code. So I don't -- I don't know if there is any document that
10 specifically says that, but it's not just, you know, free
11 hanging out there. It's stored within the account.

12 Q. So, once Google gets the geofence search warrant and it
13 searches its Sensorvault for the information, it then sends
14 anonymous data to law enforcement of only devices within the
15 box so-to-speak; right?

16 A. With those it estimates, yes.

17 Q. Law enforcement then can review that data and they can
18 select which devices are relevant and ask for additional
19 information if they want to; correct?

20 A. That's right. That's what the process outlines.

21 Q. Okay. Now, you were describing a while ago, I think, a
22 process of how Google searches their Sensorvault, that they
23 have to look through everything to see who's in the box. And
24 I'm -- I'm dumbing it down a lot --

25 A. I understand.

1 Q. -- I know, but they're digging through everything in this
2 Sensorvault to see who's in the box; right?

3 A. Correct.

4 Q. When they do that, they don't look to see where everyone
5 is. They only look to see who's in the box?

6 A. Again, who falls within those parameters.

7 Q. I'm going to come back to this idea here in just a
8 minute, but I want to -- I want to pause for a second and look
9 at this briefly. So, assuming that February 5th of 2018 I had
10 location history turned on on my own phone, Google would have
11 that information stored in their Sensorvault; right?

12 A. Correct.

13 Q. So -- but when Google looks in their Sensorvault in
14 relation to this search warrant, they don't look to see where
15 Robert Mims was on that day. Nobody knows where Robert Mims
16 was at 5:00 on that day. It only knows whether I was in the
17 box or not in the box; correct?

18 A. Correct. They just search your account to see if it's in
19 the box.

20 Q. Okay. Now, would you agree with me that a geofence
21 warrant won't necessarily pick up everybody who's physically in
22 a box?

23 A. No. Because, again, there's so many -- there's a few
24 different criteria that have to be met for it to occur. That's
25 why, as described earlier, you don't see the victim and

1 other -- the other people, is that it's -- it's a small -- even
2 though it's -- you know, it sounds like a lot, 600 -- almost
3 600 million accounts, it still is just a small subset of Google
4 users, which is in the 2 billion range.

5 So it's not all -- you know, just -- it's not the --
6 because you have a cell phone, we will find you. You have to
7 have a cell phone. You have to have a Google account. You
8 have to have location history. And then, to be returned, you
9 have to be estimated within that area.

10 Q. Yeah. It's certainly beneficial to see who may have been
11 in the box, but just because your name or your device doesn't
12 pop up doesn't mean you weren't there; correct?

13 A. That can be true, yes.

14 Q. Because, for example, it only hits, what -- it only
15 checks for information every five, six, ten minutes. How
16 often?

17 A. It can be multiple times a minute most of the time. I've
18 seen it, you know, six times a minute, two times a minute. It
19 stores quite a bit of data.

20 Q. Okay. Well, and I thought I'd seen that sometimes that
21 it could be longer. It could be more like five minutes. I may
22 have that wrong. But could it be more than a five-minute
23 interval?

24 A. The way it's described in the data I've seen, it's
25 generally not that long, no.

1 Q. Okay. Fair enough. But if you're somebody like the
2 driver of the white SUV who comes through briefly and then
3 comes back through and drops somebody off and leaves, your
4 device might not talk to Google in the few moments you drive
5 past; right?

6 A. It's possible.

7 Q. So you might not -- so your device may not hit
8 so-to-speak because you're only there briefly?

9 A. It's possible.

10 Q. Okay. Or you could just have location services off;
11 correct?

12 A. Yes. Again, if it doesn't show up, it very well could be
13 because location history is not an -- not an enabled option.

14 Q. So there are a little over 20 people in this room. If we
15 did a geofence for this room for right now, we're not
16 necessarily going to get 20 devices that hit, are we?

17 A. No. I would only expect about three or four.

18 Q. Okay. Now, one other thing to be clear, this search
19 warrant -- I've done search warrants for phones. You probably
20 did too when you were a police officer.

21 A. I have, yes.

22 Q. When you're looking for text messages setting up a drug
23 deal or pictures that may be important or you're searching for
24 e-mails or things like that, that's not what a geofence warrant
25 is about, is it?

1 A. No. It's just about location.

2 Q. That's right. Just about location. You're not searching
3 for communications on a phone. That's something separate?

4 A. Correct.

5 Q. Let me ask you, Mr. McInvaille, what is an IP address?

6 A. It's Internet Protocol address. It allows essentially
7 the tracking of what occurs across the Internet. So, when
8 requests are made for particular websites, essentially, you're
9 going to be making that request for a particular IP address out
10 to another IP address that's a, you know, Google or whoever,
11 that way it facilitates the transaction of the information.

12 Q. Okay. So, normally -- I've got an iPad, and most
13 evenings I get on it at some point for a little while and surf
14 the web on my iPad. My iPad would have a specific IP address,
15 wouldn't it?

16 A. So your home Wi-Fi would.

17 Q. My home Wi-Fi?

18 A. Correct.

19 Q. Got you. So, in other words, my wife's computer, my
20 daughter's phone, my iPad would all work off the same IP
21 address at my home?

22 A. Yes. Generally off of different ports but, yes.

23 Q. Okay. Now, would you agree that Google keeps millions
24 and millions of IP addresses?

25 A. Yes, they do. Within those accounts, they will also

1 store IP addresses as well.

2 Q. Okay. Would you agree it would be far more than 592
3 million?

4 A. More IP addresses?

5 Q. Yes.

6 A. Yes.

7 Q. Would you agree with me that Google would have to search
8 every customer to see who is using an IP address at a specific
9 date and time? In other words -- let me back up because I
10 should have asked a different question at first. Have you seen
11 search warrants to determine whose IP address this is?

12 A. Yes. If you have the IP address and you're trying to
13 determine its -- its owner?

14 Q. Yes.

15 A. Yes.

16 Q. Okay. So if I send -- if I want to know -- if I've got
17 the IP address and I want to know who does that belong to, I
18 can ask Google about it, and they would have to search every
19 customer to see who's using that IP address at a specific date
20 and time?

21 A. So, for that example, what you would do is -- IP
22 addresses are like phone numbers. They're owned by the
23 individual companies. So, you know, let's say Comcast or
24 someone like that, they own a block of IP addresses.

25 So then when you determine that that one falls within

1 their block, you go to them with a search warrant or whatever
2 legal process. You make that request to them and say, "At this
3 date and time, this IP address was used, and I need the
4 subscriber information from it because of X probable cause."
5 They will then query for that specific IP address to tell you
6 the subscriber.

7 Q. Law enforcement can actually request Google identify the
8 user of the IP address with just a grand jury subpoena; right?

9 A. That's like -- yes, probably.

10 Q. Okay. And isn't it true that an IP address can show a
11 person using a Google address in a specific location such as a
12 house?

13 A. Yes. You can resolve them back to specific addresses,
14 because, again, like the Wi-Fi in your home, it's in a fixed
15 location.

16 Q. And even though there's millions and millions and
17 millions of IP addresses out there, you can get all of that
18 with just a grand jury subpoena, can't you?

19 A. You can, but you're making a very specific request.

20 Q. All right. Now, I want to show you something. With
21 assistance from somebody in my office who knows far more about
22 technology than me, we created this document last night. And I
23 use the term "we" very loosely.

24 Do you recognize -- well, first of all, before I ask you
25 about that, let me go back for a second. In your report -- you

1 were shown this a minute ago. I believe you were asked a
2 question about this box right here (indicating). I don't have
3 a color copy. I have -- I think when I copied I didn't use
4 color, but this is the same box you were shown a few minutes
5 ago; right?

6 A. It is.

7 Q. And this is basically where you've got the geofence box
8 as a square; correct?

9 A. Correct.

10 Q. And that is basically around -- the post office is right
11 here (indicating); right?

12 A. Correct.

13 Q. And then you were asked some questions about -- about one
14 of the hits that came back in Step 1, and you've drawn this
15 basically circle that's a -- it's a 347-meter radius from the
16 latitude and longitude given for that hit; correct?

17 A. Correct.

18 Q. Okay. Because you were asked some questions about, well,
19 the device could have been inside or outside the box; right?

20 A. That's right.

21 Q. So why didn't you plot more than just one point with the
22 largest radius?

23 A. I don't recall if this is the largest, but I was asked
24 to -- to show an example of where the device -- essentially
25 where the device could be in relation to -- to a data point.

1 Q. Okay. Well, we had nine other points. I'm going to
2 throw out the one at 5:58 that we don't believe was --

3 A. Okay.

4 Q. -- was related to it. I'm talking about the -- I'm
5 talking about the seven points related to device 859 and the
6 three points related to device 768. Why didn't you plot the
7 other nine points?

8 A. Again, this is just an example for that one question
9 about how it looks where -- where the data point falls because
10 I have all of them plotted.

11 Q. Okay. You would agree that GPS is more accurate than
12 Wi-Fi; is that correct?

13 A. It can be.

14 Q. It can be? You don't think it usually is?

15 A. Yes, it can be more accurate. Yes.

16 Q. Okay. That's why, in fact, on three of these the source
17 is GPS. The three associated with 768; right?

18 A. Correct.

19 Q. And the seven associated with device 859, the source is
20 WiFi; right?

21 A. That's correct.

22 Q. And we see the GPS has a much smaller radius around the
23 latitude and longitude; right?

24 A. That's right, but that's not always true.

25 Q. Okay. So I want to go back now to the chart that I had

1 help creating. Let's look at the green -- at the green ones
2 first because those are three points. You said you went
3 ahead -- that maybe when you were working on this you plotted
4 all ten points?

5 A. Yes, I plotted all the data. Yes.

6 Q. Okay. So would you agree with me that the ones in green
7 are the three points associated with device 768?

8 A. If they're plotted correctly, yes. I'll just assume that
9 you have done this properly.

10 Q. Okay. Well, if we need to, I've got the person who put
11 this together. We can bring her in here in a minute and talk
12 about it but --

13 A. Unless you don't think it's correct, again, I said I'd
14 trust you.

15 Q. Okay. Fair enough. And the circles around each point --
16 I've got a -- I've got one that zooms in a little bit better
17 we'll look at in a second, but the circles around each point
18 would just be the radius in meters around the latitude and
19 longitude; correct?

20 A. That's what it should be, yes.

21 Q. Okay. And then for the blue ones, what we've got here,
22 the outer circle would be the same one that you had shown in
23 your report, the 347 meters; right?

24 A. It appears to be, yes.

25 Q. Okay. Well, let me go back for a second. You would

1 agree with me, for the seven points associated with device 859,
2 it's all the exact same latitude and longitude?

3 A. It is.

4 Q. Okay. And that's where we have the blue dot right here
5 (indicating), the blue pinpoint?

6 A. Correct.

7 Q. And then we have radiiuses around them. And I will just
8 tell you, for purposes of keeping this simple, rather than
9 trying to clutter up this chart with seven different blue
10 lines, I had my assistant plot the largest one, which is 347
11 meters, and the smallest one, which is the inner one, which is
12 92 meters, and then one that was 146 meters. Does that appear
13 to be accurate to you?

14 A. Again, trusting that you did it properly, yes.

15 Q. You won't dispute that it's accurate?

16 A. I'm not, no.

17 Q. All right. And I'm going to put this one up here. This
18 one kind of cuts off part of the -- part of the outer one, but
19 it helps us zoom in on the picture a little bit better. It's
20 the same chart, just zoomed in a little bit.

21 The square box here (indicating), that is the geofence.
22 That's the parameters of the geofence; right?

23 A. Correct.

24 Q. Okay. So, on device 768, the green ones, the entire
25 circle -- and, again, you said earlier the device is somewhere

1 in the circle; right?

2 A. It should be, yes.

3 Q. Yeah. The pinpoint doesn't really mean anything. It's
4 somewhere in that circle?

5 A. Right.

6 Q. And the entire circle on the three green hits are all
7 within the geofence box; correct?

8 A. That's correct.

9 Q. Okay. Now, I want to look at the smallest blue line.
10 That's the smallest, shortest diameter, the 92-meter diameter.
11 You can see here (indicating). This is the back of the post
12 office; right?

13 A. It appears to be, yes.

14 Q. Okay. And the edge of that line runs right along right
15 there -- where we were watching the video earlier, it would
16 just cover where the assailant was hiding behind the post
17 office, wouldn't it?

18 A. Yes.

19 Q. All right. And that's the tightest radius on the blue.
20 The 146, which is the second biggest radius, would certainly
21 encompass the post office, and the 347 would as well, wouldn't
22 it?

23 A. That's correct.

24 Q. So while, admittedly, on the 347-meter radius, a good bit
25 of it's inside the box, a good bit of it is outside the box,

1 but for the other eight -- oh, I'm sorry -- the other six
2 related to device 859, that would be located mostly inside the
3 box, wouldn't it?

4 A. Better than the other, yes.

5 Q. Okay. In fact, with the smallest one, it's
6 overwhelmingly inside the box, isn't it?

7 A. Yes. Much better than 347.

8 Q. Okay. There was some discussion a minute ago about
9 further legal process. Is it fair to say that you are not a
10 judge?

11 A. I am not.

12 Q. Okay. And you are not -- you've not been proposed as an
13 expert on the law; correct?

14 A. No, I'm not.

15 Q. Okay. So I'm going to use myself as an example. Okay?
16 I'm just going to give you an absolute hypothetical. I am a
17 very happily married man. I will tell you this is just a wild
18 hypothetical.

19 But if my location history was turned on on February 5th
20 of 2018 at 5:30 p.m., in theory, my information would be stored
21 in this Sensorvault, and Google would review what's in their
22 Sensorvault to respond to the search warrant; right?

23 A. Correct.

24 Q. Okay. If I was somewhere I didn't want somebody to be --
25 if I was at my girlfriend's house, for example, and I didn't

1 want my wife to know about it, Google's not going to find this
2 by searching their Sensorvault, are they?

3 A. Say that again. I'm sorry.

4 Q. If I'm somewhere I don't want to be on February 5th of
5 2018 at 5:30 p.m., this search warrant is not going to show it
6 unless I was at the Lake Cormorant post office; right?

7 A. Right. They're not going to call your wife.

8 Q. Yeah. If I was at my girlfriend's house at 5:30 p.m.
9 that evening, the postal inspection service isn't going to
10 know, are they?

11 A. No. Unless your girlfriend stays at the post office.

12 Q. That's right. Google's not going to even know because
13 they're not looking to see where I am. They're just looking to
14 see was my device in the box or not; right?

15 A. Yeah.

16 Q. Okay. And while Google might search their Sensorvault,
17 they may know where I am, they're going to know anyway because
18 I've already given them that information, haven't I?

19 A. Yeah. But, again, this isn't something that they just
20 are willingly going through. This is a -- again, a legal
21 demand they're going to search this data for. So, no, they're
22 not just looking to see where you are.

23 Q. I agree. But unless I'm at the Lake Cormorant post
24 office that evening, the only people that's going to know that
25 is Google, and they already know it because I've already shared

1 that information with them; right?

2 A. But, again, you make it out as though they're keeping
3 tabs on you being there. Again, they're only looking in this
4 instance. So they would only know if you were there, yes,
5 because they're looking.

6 Q. Just a couple more questions for you. Google sends this
7 information back in response to the geofence warrant, and,
8 basically, it showed two devices were there. And you don't
9 disagree -- and the devices I'm talking about are device 859
10 and 768. Okay? You don't disagree that in Step 3 they
11 disclose that those devices belong to Jamarr Smith and Gilbert
12 McThunel?

13 A. No.

14 Q. Okay.

15 A. In the beginning, you said -- you said two or three?

16 Q. I'm sorry. They sent back three.

17 A. Okay.

18 Q. But I'm ignoring the third one about whatever record --
19 waves records because --

20 A. Okay.

21 Q. -- that -- I don't believe that's relevant to this.

22 A. Got you.

23 Q. It's at that point they say device 859 and 768 were
24 present in the vicinity of Lake Cormorant post office; right?

25 A. Correct. Those devices.

1 Q. All right. And you would agree me that we've been able
2 to identify those devices in Step 3 as Smith and McThunel?

3 A. For those accounts, yes.

4 Q. For those accounts. Okay. So you don't disagree that
5 Smith and McThunel were present at the Lake Cormorant post
6 office at 5:30 p.m. that evening, do you?

7 A. I can't say them physically, but an account that you have
8 associated with them, yes.

9 Q. Okay. Their devices were present, weren't they?

10 A. The devices with those accounts, yes.

11 Q. And, in fact, you've watched the video here. I assume
12 you've watched it before.

13 A. Yes.

14 Q. You do see on the video where the assailant has his elbow
15 up to his ear for three minutes standing behind the post
16 office, don't you?

17 A. So I watched today, but I -- honestly, from that TV, I
18 couldn't see it, but, again, I wasn't close enough to be able
19 to see it. I can't -- I can't rule on that either way.

20 Q. Okay. And you were here a while ago when we put the
21 phone records up. You don't dispute that the phone records
22 confirm that McThunel and Smith were on the phone with each
23 other for a five -- roughly five-minute phone call around 5:15
24 p.m. that evening, do you?

25 A. I haven't reviewed those records.

1 Q. Let's take a look at them real quick. Here's the phone
2 records from C Spire. Did you ever review phone records when
3 you were a police officer?

4 A. Yeah, I've reviewed one or two sets.

5 Q. Okay. So here's the start time, 1716 and 10 seconds.
6 You understand it's military time; correct?

7 A. I do.

8 Q. And that's on February 5th; right?

9 A. Correct.

10 Q. And in civilian time, that would be 5:16 p.m., wouldn't
11 it?

12 A. Correct.

13 Q. And we have a phone call. The calling number would be
14 6029. The called number would be 7511. I'll represent to you
15 that's Jamarr Smith's number and Gilbert McThunel's number.
16 And the duration of the call lasted 350 seconds; right?

17 A. Okay.

18 Q. And if my math is correct, I guess that's about five
19 minutes and 50 seconds; right?

20 A. It's close.

21 Q. Okay. So you don't dispute, do you, that, in fact,
22 Gilbert McThunel was on the phone with Jamarr Smith, assuming
23 that I have not lied to you about the -- whose numbers those
24 are?

25 A. No. Can -- can I see those records?

1 Q. Absolutely.

2 MR. MIMS: May I approach the witness, Your Honor?

3 THE COURT: You may.

4 A. Does it have a definition sheet with it or not?

5 BY MR. MIMS:

6 Q. It does. Feel free to dig through it. Just please don't
7 get it out of order because I'll never get it back.

8 A. Got you. I know you guys like printing records. It's
9 not a good idea.

10 Q. I'm sorry?

11 A. I know you guys like printing these things. It's
12 terrible.

13 Q. Yeah, it is.

14 A. You said the definition sheet is here?

15 Q. It should be. I believe I attached it. It may be at the
16 very back.

17 A. Okay. (Reviews record.) Okay. I just wanted to be able
18 to review them since you asked me about them.

19 Q. I'm sorry?

20 A. I just wanted to be able to review them since you asked.
21 I just had not seen them.

22 Q. All right. Thank you.

23 MR. MIMS: Your Honor, I have no further questions. I
24 would offer into evidence the plotting of some of these points
25 that I referred to with the expert. I'd offer them as G-4A and

1 G-4B.

2 THE COURT: Any objection?

3 MR. CHINICHE: May I just take a look at them?

4 THE COURT: Certainly.

5 MR. MIMS: Oh, I'm sorry.

6 (CONFERRING OFF THE RECORD.)

7 MR. CHINICHE: No objection.

8 MR. LEWIS: No objection.

9 THE COURT: Thank you. They'll be received.

10 (EXHIBIT NOS. G-4A AND G-4B ADMITTED INTO EVIDENCE.)

11 MR. MIMS: Your Honor, with that, I have no further
12 questions.

13 THE COURT: Redirect.

14 **REDIRECT EXAMINATION**

15 BY MR. LEWIS:

16 Q. You were asked about practices inside Google, you know,
17 what their specific interior practices are. And I'm not sure
18 if this is an issue or not, but if the Court desired to hear
19 what goes on at Google, the Court has the power to subpoena
20 Google employees, which may be painful for us to listen to, to
21 come and testify about that; correct?

22 A. It's happened before.

23 Q. Right. I was about to say, in the *Chatrie* case, a number
24 of Google employees testified; correct?

25 A. That's correct.

1 Q. And then in the *Dawes* case in California, which is maybe
2 a little more convenient, there were Google -- did Google
3 employees testify or did they just do affidavits?

4 A. No. They completed declarations to avoid having to come
5 for testimony.

6 Q. And so you have relied on these declarations in your
7 testimony today as to about what Google practices are; correct?

8 A. Right. And those applied to those matters that I was
9 working, yes.

10 Q. And, in fact, those declarations were attached to a
11 report that we've provided the Court; correct?

12 A. That's correct.

13 Q. Okay. You were asked a series of questions about turning
14 on and off location history. Is it your testimony that someone
15 turning on location history and, therefore, providing that
16 information to Google no longer has an expectation of privacy
17 in that information?

18 A. No, I don't. And from reviewing the documents that have
19 been provided, the *amicus* brief in *Chatrie*, those things,
20 Google also doesn't akin it to the release of it. They -- they
21 view it as protected. They require themselves that you provide
22 a search warrant. There have been other agencies in the field
23 that can get that data without a search warrant, but Google
24 requires it. So they do not feel that it's non-protected
25 material. They describe it as a journal.

1 Q. Okay. And Mr. Mims gave a long -- perhaps overlong
2 example of him not -- him being at his girlfriend's house. You
3 understood him to be saying that he would have an expectation
4 of privacy in that information?

5 A. You would think that everybody would, yes.

6 Q. In the warrant that was sent to Google in this case in
7 November of 2018 -- now, let's not get confused about these
8 warrants that were sent in 2019. Those warrants had specific
9 what?

10 A. Account names. So, as a result of the geofence request
11 where the three accounts were subsequently retrieved back from
12 the three different steps, then there were -- the narrowing
13 occurred in a separate piece. That occurred afterwards, after
14 the accounts were identified.

15 Q. Okay. This warrant in November of 2018, did it request
16 information for a specific IP address?

17 A. The geofence warrant?

18 Q. Right.

19 A. No, it did not.

20 Q. Did it request information about a specific phone number?

21 A. No, it did not.

22 Q. Did it request information about a specific e-mail?

23 A. No. It actually asked for anonymized information.

24 Q. Did it ask for information about a specific Google
25 account?

1 || A. No.

2 MR. LEWIS: I have nothing further, Your Honor.

3 **THE COURT:** Okay. I have two or three things I want
4 to ask.

5 MR. LEWIS: I'm sorry. He --

6 MR. CHINICHE: Your Honor --

7 **THE COURT:** Oh, I'm very sorry. Come ahead,
8 Mr. Chiniche.

REDIRECT EXAMINATION

10 | BY MR. CHINICHE:

11 Q. Mr. McInvaille, why don't you testify for prosecutors?

12 A. They don't need private companies to assist them. They
13 have law enforcement agencies that they can request services
14 from.

15 Q. And presumably free to them; right?

16 A. Yeah. I've never seen a prosecutor pay the FBI for their
17 work.

18 Q. And does Google offer any training that you could go to?

19 A. No.

20 Q. So that's why you haven't had any training?

21 A. Right. There are a few law enforcement only classes that
22 are available out there that go directly towards the process of
23 the request, not so much the technology.

24 Q. Okay.

25 A. So essentially teaching people that this is an option.

1 Q. All right. And Mr. Mims showed you a diagram from last
2 night, Government G-4A and G-4B. You see those?

3 A. Yes.

4 Q. And the radius -- that's similar to the one in your
5 report; is that correct?

6 A. It is.

7 Q. And then I believe this is the zoomed in -- zoom-in
8 version?

9 A. It appears to be, yes.

10 Q. And in this diagram, you're familiar with the landmarks
11 here. The intersection of the road; right?

12 A. Yes, the railroad tracks.

13 Q. Railroad tracks that we saw the train on the video. And
14 this is the post office right here (indicating); right?

15 A. Correct.

16 Q. None of these devices are in that parking lot of the post
17 office, are they?

18 A. The circles intersect with the parking lot, but, you
19 know, they -- I wouldn't say that they're -- they're not
20 confined to the parking lot, no.

21 Q. Right. The GPS coordinates where those green pegs are?

22 A. No. They're -- again, they're not confined to the -- to
23 the parking lot.

24 Q. Which is right here (indicating)?

25 A. Correct.

1 Q. Thank you, Mr. McInvaille.

2 THE COURT: Mr. Travis?

3 MR. TRAVIS: No thank you, Your Honor.

4 THE COURT: So I understand that you've testified
5 about 42 times. I'm really looking for some information, kind
6 of historical, that might help me here.

7 In those cases where you've testified, have you seen
8 in some instances the language that is used -- that is attached
9 to the affidavit in this case?

10 THE WITNESS: Similar language, yes.

11 THE COURT: So this language in Paragraph 2 says "Law
12 enforcement will seek additional information regarding those
13 devices through further legal process." Have you ever
14 testified regarding what that further legal process entails?

15 THE WITNESS: So the other cases that I've had
16 where -- so each of these warrants kind of -- they facilitate
17 their own steps. So the over -- the overall process from start
18 to finish is generally about the same. Sometimes Step 2 gets
19 removed, and then sometimes Step 2 is in there. The other
20 piece that gets added or removed is the "further legal
21 process."

22 So, for example, in *Chatrie*, that warrant is very
23 similar to this warrant. The one piece that this warrant has
24 that *Chatrie* does not is the "further legal process." So, for
25 example, switching over to other cases that I've worked where

1 they say "further legal process," it's because more warrants
2 are required to go through the steps.

3 In the *Dawes* case, we actually learned that from the
4 time that that initial search warrant was done to subsequent
5 search warrants that that team was initiating later, that the
6 judge had actually asked them to begin adding in a step to get
7 further legal process for each and every request throughout the
8 steps.

9 So they would go from Step 1 with the original
10 warrant, get that data. They would then analyze and take a
11 look at it. If they decided we want, you know, one or three of
12 these people to move on to the subsequent steps, they would go
13 get a new warrant, make that request to Google, and then,
14 again, analyze and, if needed, make another subsequent request
15 with legal process -- new legal process. A brand new search
16 warrant.

17 So, essentially, for a three-step process, they would
18 go get three warrants. In the initial warrant, they would
19 describe that I'm going to do each of these things with a
20 separate warrant in between each one. And that's generally the
21 way it's described, is with further legal process.

22 **THE COURT:** So, to clarify, I had questioned myself as
23 to whether the intent might be that there be a separate warrant
24 for Step 2 and a separate warrant for Step 3.

25 **THE WITNESS:** I've seen that several times, yes.

1 **THE COURT:** Now, you've seen that, but have you seen
2 it in all your cases?

3 **THE WITNESS:** No. Again, these warrants have been
4 tailored in -- in different ways. There's times that I see all
5 three steps. There's some times that I see two steps. There's
6 times that I see three steps with warrants in between or just
7 two steps with warrants in between. It's really on how it's
8 been tailored and presented to the judge.

9 **THE COURT:** So, to be clear, looking at this
10 particular one, when you see in Paragraph 2 -- do you need to
11 look at this language?

12 **THE WITNESS:** I -- I recall it.

13 **THE COURT:** Okay. When you see in Paragraph 2 "and
14 will seek any additional information regarding those devices
15 through further legal process," in all of your other cases,
16 your testimony has been consistent that that requires
17 additional warrants at each stage?

18 **THE WITNESS:** Right. Because if you actually read
19 that paragraph, what it states is it outlines we are going to
20 ask for and receive the anonymized data, which is that G-3 page
21 that they've shown us several times.

22 Once we have that information, we will analyze, and
23 then if we want to seek more information. So, if we want the
24 contextual information and if we want to determine who the
25 subscriber is, that we will get further legal process.

1 In my other cases that I have had where that is
2 spelled out, there are multiple warrants for this one process.

3 **THE COURT:** So is it fair to say that in the cases
4 you've testified that what you deem as an expert to be required
5 is dependent upon the language in the search warrant?

6 **THE WITNESS:** Exactly, yes.

7 **THE COURT:** Okay. So tell me -- this 68 percent
8 accuracy that I see referred to, can you tell me what that
9 means?

10 **THE WITNESS:** Yes. So if you recall the two pictures
11 that we've been going through with the circles around the
12 geofence, those circles on that map's display radius has been
13 provided. So, as Mr. Mims said, you can take that latitude and
14 longitude, drop it on the map. You then draw the circle around
15 that reference location.

16 **THE COURT:** Uh-huh.

17 **THE WITNESS:** Then you can kind of forget that that
18 center point exists at that point. You can take the little pin
19 drop and pull it out, get rid of it, because now what we know
20 is that the device should be within this circle.

21 Now, Google has testified that it is their goal that
22 68 percent of the time the device should be located somewhere
23 within that circle. So for -- let's just take the 92-meter
24 circle that's in the center here, that center blue circle, the
25 smallest one. Google is saying that the device should be

1 located within the boundaries of that circle 68 percent of the
2 time, meaning there is a chance that the device could be
3 outside of the circle somewhere as well.

4 **THE COURT:** And back to Mr. Chiniche's question, like
5 this diagram here does not represent that the green -- where
6 the green dot is positioned on the map means that the person
7 with the device was standing at that exact location?

8 **THE WITNESS:** Exactly. So it's somewhere within
9 the -- it should be somewhere within each of those circles.
10 Each one of those is a separate measurement.

11 **THE COURT:** So you started doing this in 2017?

12 **THE WITNESS:** I began working at Envista in 2017, yes.

13 **THE COURT:** So help me with the history. At that
14 time, I don't think there was a case -- our search warrant was
15 signed in November of 2018. To your knowledge, what -- what
16 law -- what were you using prior to the decision -- the first
17 decisions that came?

18 **THE WITNESS:** So this process of asking for this data
19 is relatively new. The underlying data, the location history
20 specific to a person's account, we've been -- I've been
21 reviewing that since -- since I was in law enforcement 2013.
22 That's -- that's a function that we've been able to get and
23 review.

24 So that technology, as far as how that process and how
25 that data is collected and used and how that works, has been

1 reviewed by law enforcement for, you know, ten years now.

2 **THE COURT:** Primarily from cell tower dumps?

3 **THE WITNESS:** So, no, from Google itself. But, again,
4 that request at that time was and still is, in some instances,
5 the specific account. I'm asking for your specific account
6 because I want to know where you are versus this is a new
7 request that has been tailored so that if I don't know who you
8 are and I want to try to find you, then I can find you.

9 **THE COURT:** Okay. Have you testified before regarding
10 whether or not a search was overbroad?

11 **THE WITNESS:** Yes. So I often get asked that in these
12 specific requests.

13 **THE COURT:** So, in *Google V*, that was 875 square
14 meters. This one is, like, 98,000 square meters. I don't
15 recall anybody has mentioned that today. Is that overbroad or
16 not?

17 **THE WITNESS:** So, in terms of the box that you see
18 drawn, one of the important things to understand here is that
19 the -- the only thing that the time in the box restricts is how
20 much data they receive back. It has no impact on the search
21 that's conducted.

22 So I often tell you that if you -- if you took one of
23 the tiles on the floor and said, "Hey, Google, I want to know
24 who's in that -- on that -- standing on that tile for one
25 minute," the search of all of the users still has to occur.

1 Now, because we made that box so very small, they might only
2 return one person, but they had to still search everyone.

3 So the box really does nothing to restrict the search.
4 It only restricts what they get back in return.

5 **THE COURT:** The result?

6 **THE WITNESS:** Right.

7 **THE COURT:** So the fact that this search is three or
8 four acres doesn't matter?

9 **THE WITNESS:** Honestly, no. If they would have drawn
10 it bigger, they may have returned more users, but the search
11 was still the same. If you draw it smaller to just the
12 confines of the -- of the parking lot or the building there or
13 the back of the building, you may have returned less users,
14 but, again, it's not going to change the search that was made.

15 **THE COURT:** I think I understand. So, in this
16 affidavit, it mentions all location data, including cell tower,
17 GPS, and other Wi-Fi means.

18 **THE WITNESS:** Right.

19 **THE COURT:** Is -- is there anything about this case
20 that is significant to you about the source? Do you even know
21 the source?

22 **THE WITNESS:** So it tells you in the -- in the records
23 what source was used to derive each of the locations. So if
24 you look at that G-3 -- it should be about four columns over, I
25 believe, four or five columns over -- you'll see the source

1 that was used.

2 **THE COURT:** And several of those -- that first number,
3 whatever it was, it shows Wi-Fi. Then the last three, I think
4 it is, shows GPS. Does that matter?

5 **THE WITNESS:** No, it does not. What you're looking at
6 is that is, at that time, what Google used to determine those
7 locations is really all it is. It doesn't -- it doesn't change
8 what the scope of the search was or any of that. So, no, I
9 would say it's insignificant.

10 **THE COURT:** And it doesn't speak to the accuracy?

11 **THE WITNESS:** No. Wi-Fi is -- all of them are
12 estimations. Wi-Fi is even more of a broader estimation than
13 GPS, but, no, it should not have any significant problem with
14 the -- with the accuracy. What you see there is relatively
15 what you get.

16 **THE COURT:** In the cases that you've testified in, is
17 it always alleged in the affidavit that a phone was used or
18 possibly used?

19 **THE WITNESS:** I can't speak to that and say that every
20 one, but I know I have seen it where it's mentioned. But, of
21 course -- so, for example, in *Chatrie*, in that matter, the
22 person was standing directly underneath a camera. You could
23 see the physical phone in their hand. You could see the color
24 of the phone. That's how close it was.

25 So I can't speak to all of them but -- actually, no, I

1 can -- I can say for sure that not all of them reference having
2 a phone. *Dawes* in California does not reference having a phone
3 because they didn't have any pictures, video, any inclination.
4 It was just looking because they thought they may just because
5 people have phones.

6 **THE COURT:** Did you testify in *Google IV*?

7 **THE WITNESS:** I'm sorry?

8 **THE COURT:** Did you testify in the case that's denoted
9 as *Google IV*?

10 **THE WITNESS:** Which one is that?

11 **MR. LEWIS:** Your Honor, *Google I, II, III, IV*, and *V*
12 were all *ex parte* matters --

13 **THE COURT:** Got you.

14 **MR. LEWIS:** -- where the magistrate judge just ruled
15 on them. And this is maybe kind of new to me, but had a
16 written opinion based on a warrant application. The only
17 developed records -- you could ask him, but *Chatrie*, *Dawes*,
18 maybe a case in Florida where there was an evidentiary hearing
19 like this, Your Honor.

20 **THE COURT:** Okay. So, Counselors, put this in the
21 back of your mind. Later, after you make your argument, I do
22 have some questions for you, but it's my understanding that the
23 *Google IV* case, the affidavit did not allege that the suspect
24 had a phone?

25 **MR. MIMS:** That may be. I have got it here. I can

1 look at it. But, in fact, there are many, many cases in which
2 there's no allegation in the affidavit that the subject had a
3 phone. I've gotten geofence warrants before on cases I've
4 worked on where we had no video, had no idea whether there were
5 phones there or not. The affidavit is based on a statement
6 that, hey, criminals, like everybody else, they all have a
7 phone. And if they have a phone, Google could have location
8 information.

9 **THE COURT:** Okay. Is it significant to you in this
10 case that of the three device numbers that came back to turn
11 out to be two of the defendants in this case, the other, the
12 permanentwaves dot whatever, was not further searched? Does
13 that in any way make the identity of the two positive hits less
14 reliable?

15 **THE WITNESS:** No. My only concern with the -- I'm
16 sorry -- the waves account -- I can't recall the first part --
17 is that, you know, the portion that had been described earlier
18 about realizing that that account was insignificant to the
19 investigation based on time comes from the very first step of
20 the warrant. So you see that time that was being used, that
21 1758 time there on the screen, that comes from the very first
22 data set.

23 And as a result of even realizing that that was
24 insignificant due to the time, it's -- that account still
25 progressed through Step 2 and Step 3. And then, instead of

1 getting the further information to get more locations for that
2 account that would have shown you where this person possibly
3 lives, where they go to work every day, things like that that
4 would allow you to identify them was not sought.

5 So it's weird that this device makes it through all
6 three steps and then is determined to not be relevant based on
7 a piece of information that came from the very first step.

8 **THE COURT:** Okay. Mr. Mims, any questions in light of
9 mine?

10 **MR. MIMS:** I do, Your Honor.

11 **RECORDS-EXAMINATION**

12 **BY MR. MIMS:**

13 Q. Mr. McInvaille, in relation to that last set of
14 questions, you did -- you were here when Mr. Mathews testified;
15 right?

16 A. Yes.

17 Q. You did hear him say they tried to figure out who
18 permanentwavesrecords was and could not locate that; correct?

19 A. Yes.

20 Q. Okay. So they didn't just completely ignore it. They
21 tried to follow up and couldn't find it?

22 A. Yes.

23 Q. Because it could have been a person who was in the
24 vicinity at the time and may possibly have been a witness;
25 right?

1 A. It's possible.

2 Q. Okay. But from the video, it clearly wasn't somebody who
3 was involved in the robbery, was it?

4 A. I don't -- I don't know that I can make that
5 determination.

6 Q. Okay. So you were asked a question about this further
7 legal process. You would agree with me that in this language
8 here that's in the second page to Attachment A to the warrant,
9 the language that kind of lays out Step 1, Step 2, and Step 3,
10 right --

11 A. Correct.

12 Q. -- it doesn't say anything about -- it doesn't say
13 specifically going back for another search warrant, does it?

14 A. It says "further legal process."

15 Q. I understand it says that. It doesn't say go back for a
16 search warrant, does it? It doesn't use the word "search
17 warrant," does it?

18 A. What would be legal process then?

19 Q. Sir, I'm asking you, does it say go get another search
20 warrant?

21 A. I'm just trying to understand what legal process would be
22 if it's not a search warrant.

23 Q. Mr. McInvaille, I appreciate -- I appreciate that. I'm
24 asking you a very specific question.

25 A. Okay.

1 Q. When it comes to Step 2 and Step 3 --

2 THE COURT: Answer his question.

3 BY MR. MIMS:

4 Q. -- it does not use the words "go get another search
5 warrant," does it?

6 A. No. It says "further legal process."

7 Q. Okay. And my understanding is when -- when I've talked
8 with case agents -- and I've dealt with multiple geofence
9 warrants. I've talked to them about how do you do this, what
10 do you submit to Google -- they always talk about the Google
11 legal portal. Do you call -- have you heard it called the
12 legal portal?

13 A. Yeah. LERS, L-E-R-S, the portal.

14 Q. Okay.

15 A. It can be named a few things.

16 Q. What does LERS stand for?

17 A. Law Enforcement Resource something, I believe.

18 Q. Okay. If you're wanting to have legal communications on
19 search warrants with Google, you go through this legal portal,
20 don't you?

21 A. Yes.

22 Q. All right. And, in fact, this Attachment A says -- in
23 regards to Step 2 and Step 3, it says that once these accounts
24 have been identified in Step 1, the devices that were present,
25 law enforcement may review those, and upon demand, the provider

1 shall provide more information; correct?

2 A. Yes.

3 Q. And, again, it says the same thing in Step 3. Upon
4 demand, the provider shall provide; right?

5 A. Yes.

6 Q. Now, would you agree with me that Google is not
7 necessarily the most law enforcement friendly company out
8 there?

9 A. They seem to respond, what, 10,000 times a year it
10 sounded like.

11 Q. Really. Have you ever -- have you ever as a case agent
12 submitted geofence warrants to Google? You haven't, have you?

13 A. No. I've submitted other requests.

14 Q. Would you disagree with me if I told you that Google
15 would be very hesitant to refuse (sic) to comply if they didn't
16 think you had dotted all of your I's and crossed all of your
17 T's legally?

18 A. Say that again.

19 Q. Would you disagree with me if I told you that Google
20 would not hesitate to reject your warrant if you didn't take
21 all of the appropriate steps in their mind?

22 A. That's right. They will.

23 Q. I'm sorry?

24 A. They will reject your warrant, yes.

25 Q. Yes. Now, you talked about the 68 percent probability.

1 I've never really fully understood that. What you're telling
2 me is, when you draw this circle -- or when Google provides
3 information that leads to these circles, that there's a
4 68 percent probability that the device is inside the circle;
5 right?

6 A. Correct. Yeah. Forget the geofences here. Just look at
7 the circle. One individual circle at a time. 68 percent of
8 the time it's in the circle.

9 Q. Which means 32 percent of the time it might not be or
10 wouldn't be?

11 A. It's possible, yes.

12 Q. Okay. But wouldn't -- even for the 32 percent, we're not
13 saying there's a 32 percent chance that that device is back
14 home in Batesville an hour away. It just might be over here,
15 not inside the circle; right?

16 A. It could be.

17 Q. Well, let's talk about -- I'm not talking about could be.
18 What I'm saying is, you're telling this Court that, well -- if
19 I understand it correctly. If I'm wrong, tell me. What I
20 understand you saying is, just because Google says here's your
21 latitude and longitude, here's your radius, draw a circle, it's
22 still only a 68 percent chance you're inside that circle.

23 What I'm saying is, that doesn't mean there's only a
24 68 percent chance they are really there at all, period.
25 There's still 100 percent chance they're near this post office.

1 They might just be outside the circle, not inside?

2 A. Again, that's possible. That's correct.

3 Q. What's not possible is it doesn't mean there's a
4 32 percent chance they were nowhere near here?

5 A. I don't think they would be -- you said Batesville. No,
6 I don't think so.

7 Q. Yeah. They're not an hour away or they're not 30 minutes
8 away?

9 A. Correct.

10 Q. They're here?

11 A. Somewhere, yes.

12 Q. Okay. And the last thing, you were asked some questions
13 about the size of the box. You can draw a geofence box all
14 sorts of different sizes, can't you?

15 A. You can.

16 Q. In fact, sometimes you don't draw a box. Sometimes you
17 just put one latitude and longitude and say -- and you do a
18 radius around that and say give me everything within a hundred
19 meters of this latitude and longitude; right? You've seen
20 those?

21 A. Yes. You can even see people where they'll draw polygons
22 that cover just the parking lot and a strip of the road, or,
23 you know, it can be shaped like a "T." It can be anything.

24 Q. And you typically base that on the different crime scenes
25 you're dealing with; right?

1 A. They probably do, yes.

2 Q. So, in this case, we had evidence from the video that
3 you've got -- you've got the assailant -- let me get the other
4 one that zooms in.

5 You've got an assailant that's here behind the post
6 office (indicating). You've got a white SUV that comes across
7 the road and down here and back twice (indicating). You've got
8 a red car that comes in here -- I can't remember the direction
9 it comes from, but it comes in here -- I think it comes this
10 way (indicating), and then it goes across the tracks and turns
11 around and comes back and then comes up here in the roadway in
12 front of this building right here (indicating).

13 So, in other words, here it makes sense. Don't just draw
14 a little box right around the post office, but let's encompass
15 these roads where the cars are traveling. That makes sense,
16 doesn't it?

17 A. Again, yeah, you could draw the polygon to cover, you
18 know, the areas that you're describing in the video. You could
19 tailor it to those -- you know, to that strip of road, that
20 section. You could tailor how you -- how you need it.

21 Q. Have you ever been to Lake Cormorant, Mississippi?

22 A. I'm sorry?

23 Q. Have you ever been to Lake Cormorant, Mississippi?

24 A. No, sir.

25 Q. I will tell you there is nothing there, as you can

1 probably see from this map. There's literally nothing there.

2 At 5:30 on a Monday afternoon --

3 **MR. LEWIS:** Excuse me, Your Honor. I think people
4 from Lake Cormorant would object to that.

5 **MR. MIMS:** I'm not sure there's anybody from Lake
6 Cormorant to object to it.

7 **BY MR. MIMS:**

8 Q. But let me ask you this question. You would agree with
9 me there would be a difference in the number of people you
10 might expect in Lake Cormorant, Mississippi, at 5:30 p.m. on a
11 Monday afternoon compared to the Oxford Square at noon on a
12 football Friday weekend?

13 A. Right. You're going to return a different set of users,
14 yes.

15 Q. Right. And so, in a case like this where you're looking
16 at a crime in Lake Cormorant, you might draw a bigger box
17 partly because you've got roads you're trying to cover, but
18 partly because you know you're only going to get a few devices
19 anyway; right?

20 A. It's possible.

21 Q. Whereas, if -- you've probably never been to Oxford on a
22 football Friday, but let me tell you, it gets crazy around
23 here. If you had a crime on the Square at noon on a Friday
24 before a football game, you're going to have to probably draw a
25 small box or you're going to get way more information?

1 A. Right. They're going to respond with more users, yes.

2 Q. Yeah. So the size of the box can sometimes be related to
3 your location and the number of people that may be there;
4 right?

5 A. It could. It restricts the return, yes.

6 Q. All right. Thank you.

7 **MR. MIMS:** No further questions, Your Honor.

8 **THE COURT:** Let me ask you a question, and so you will
9 know it when you get there. On the 32 percent, does that mean
10 that someone could be inside the radius and not be detected?
11 Is that some of the 32 percent?

12 **THE WITNESS:** Yeah. I mean, you could have -- so it
13 kind of goes both ways. In cases that I've had, you'll either
14 have people who never entered the geofence -- if they have a
15 bad estimation or an estimated inside, well, now their data
16 gets returned versus -- you can also have bad estimations the
17 other way. Let's say you know that device is squarely within
18 the geofence but a bad estimation is made by Google and puts
19 them outside of the fence, now their data is not returned. So
20 that actually cuts both ways.

21 I've seen plenty of data where in Step 2 you see
22 people travel. Let's just say -- you know, this covers a lot
23 of the street, but there are some that will meet up close to
24 the street but not encompass it. You'll see people travel and
25 then jump in and jump back out. You can tell they never

1 stopped. There's no way they stopped based on their path of
2 travel and speed.

3 **THE COURT:** Okay.

4 **MR. MIMS:** May I follow up on that?

5 **THE COURT:** Yes, sir.

6 **BY MR. MIMS:**

7 Q. Mr. McInvaille, just one question on that. Fair to say
8 that as far as this whole 68 percent deal, Google is exercising
9 its own good faith to try to comply with the warrant to say who
10 they reasonably believe to be within the parameters?

11 A. Again, they're returning the estimates that they have,
12 yes.

13 **THE COURT:** Counselors?

14 **MR. LEWIS:** We have no questions.

15 **MR. CHINICHE:** No, Your Honor.

16 **MR. TRAVIS:** No thank you.

17 **THE COURT:** Let's take a break and then -- you're
18 finally released. You can sit in the courtroom.

19 * * * * *

20

21

22

23

24

25

CERTIFICATE

I, Phyllis K. McLarty, Federal Official Realtime Court Reporter, in and for the United States District Court for the Northern District of Mississippi, do hereby certify that pursuant to Section 753, Title 28, United States Code, that the foregoing 73 pages are a true and correct transcript of the stenographically reported proceedings held in the above-entitled matter and that the transcript page format is in conformance with the regulations of the Judicial Conference of the United States.

12 Witness my hand, this 16th day of February, 2023.

/s/ Phyllis K. McLarty
PHYLLIS K. McLARTY, RMR, FCRR, CCR #1235
Federal Official Court Reporter